

HYBRID WAVEGUIDE

ABSTRACT OF THE DISCLOSURE

5 A waveguide system wherein a top cladding layer leaves portions of an
underlying core channel exposed to ambient air. The ends of core channels are exposed
so that light can exit out of or enter into each of the core channels. Openings are formed
in the top cladding layer to expose a curved section of a core channel to the ambient air.
The low index of refraction of the ambient air allows the curved section to have a reduced
turn radius and thereby allows the waveguide system to have a smaller footprint. A via in
10 the top cladding layer provides access to an underlying core channel so that optical
communication with the underlying core can be established. An optical computer input
device formed of waveguide systems having top cladding layers that leave portions of an
underlying core channel exposed.